

**These examples will be done as Class Exercises in the
Conference Using American Factfinder & Other Data
Query Tools Workshop
Tuesday November 6, 2013**

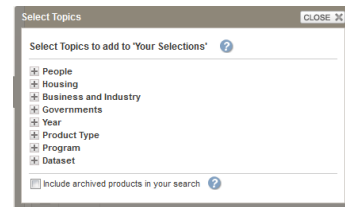
American FactFinder ***Advanced Search*** ***Examples***



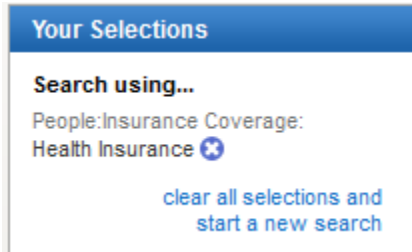
AFF FEATURES: Topic Search for State and County Level Data

1. What is the most current percentage of people in Montana and in Flathead County who do not have health insurance?

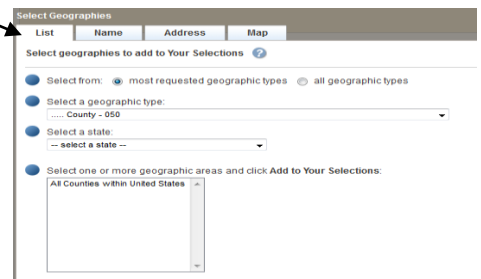
Click on Advanced Search in the blue menu bar at the top
Select Topics Bar> click on + to expand People > Insurance
Coverage = Health Insurance
Close Topics overlay



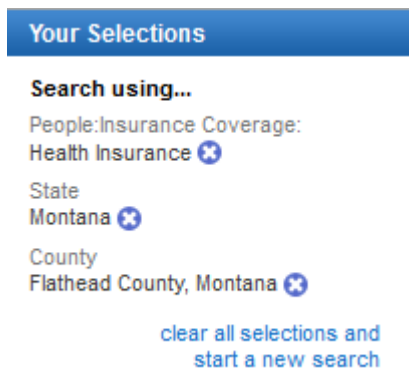
Your Selections Box should show:



Open Geographies Bar > (List tab is default)
Select a geographic type = State – 040
Highlight Montana > Add to Your Selections
(still on List tab) Select a geographic type = County – 050 >
Select a state = Montana
Highlight Flathead County, > Add to Your Selections
Close Geographies overlay



Your Selections Box should show:



Click hyperlink (table title for S2701 Health Insurance Coverage Status, 2012 ACS 1-Year Estimates) **Answers: Without health insurance in Montana, 18.0% (+/-0.6); Flathead County, 22.8% (+/- 3.0)**

Click Back to Advanced Search and clear all selections from the Your Selections box.

AFF FEATURES: Topic Search for State and County Level Data

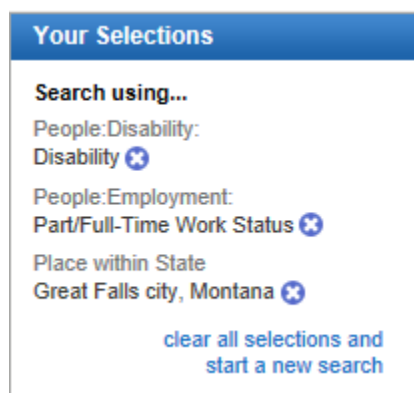
2. What is the number of full-time (35 or more hours per week) workers with a disability in Great Falls City?

Click on Advanced Search in the blue menu bar at the top
Select Topics Bar> Click on + to expand People > Disability = Disability

(Still in Topics) Click on the + to expand Employment>Part/Full-Time Work Status
Close Topics overlay

Open Geographies Bar > (List tab is default)
Select a geographic type (Scroll Down)= Place – 160
Select a state = Montana
Highlight Great Falls city> Add to Your Selections
Close Geographies overlay

Your Selections Box should show:



Click hyperlink (table title for: B23023 Sex by Disability Status by Work Status in the Past 12 Months By Usual Hours Worked... ACS 2011 3-Year Estimates”

Answers: Estimate for Full-time (35 hours or more) 1,555 (750 Males +/- 260 and 805 Females +/- 283);

Click Back to Advanced Search and clear all selections from the Your Selections box.

AFF FEATURES: Topic Search for State and County Level Data

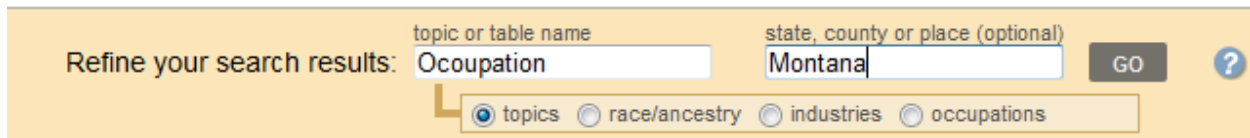
3. *Statewide, what was the 2012 median earnings by gender of Montana workers in the personal care and service occupations?*

Click on Advanced Search in the blue menu bar at the top

Select Topics Bar> Click on + to expand Employment>Income & Earnings (Individual)

Close Topics overlay

In the Refine your search box, enter Occupation in the topic box and Montana in the State



Your Selections Box should show: (Misspelled Occupation purposefully to show auto correct- be mindful of this)

Click hyperlink (table title for: "S2402 Occupation **by Sex** and Median Earnings in the Past 12 Months.. 16 Years and Older 2012 ACS 1-Year Estimates")

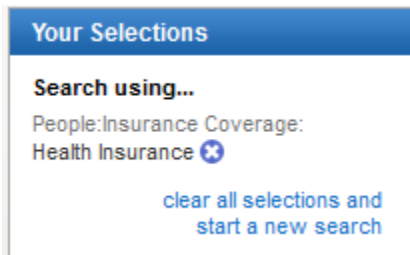
Answers: Estimates for median earnings for workers Personal Care and Service Occupations in 2012 was Males \$25,426 +/- \$2,240 and Females \$20,591 +/- \$2,733

AFF FEATURES: Topic Search for State and County Level Data

4. Statewide, what was the 2012 median earnings by gender of Montana workers in the personal care and service occupations?

Click on Advanced Search in the blue menu bar at the top
Select Topics Bar> click on + to expand People > Insurance Coverage = Health Insurance
Close Topics overlay

Your Selections Box should show:



Your Selections

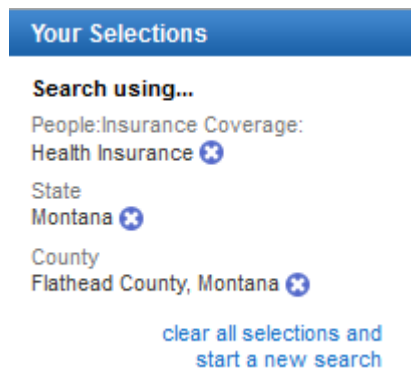
Search using...

People:Insurance Coverage:
Health Insurance ✕

[clear all selections and start a new search](#)

Open Geographies Bar > (List tab is default)
Select a geographic type = State – 040
Highlight Montana > Add to Your Selections
(still on List tab) Select a geographic type = County – 050 >
Select a state = Montana
Highlight Flathead County, > Add to Your Selections
Close Geographies overlay

Your Selections Box should show:



Your Selections

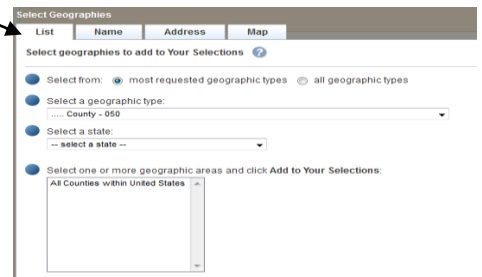
Search using...

People:Insurance Coverage:
Health Insurance ✕

State
Montana ✕

County
Flathead County, Montana ✕

[clear all selections and start a new search](#)



Select Geographies

List Name Address Map

Select geographies to add to Your Selections ?

Select from: ☒ most requested geographic types ☐ all geographic types

Select a geographic type:
County - 050

Select a state:
-- select a state --

Select one or more geographic areas and click Add to Your Selections:
All Counties within United States

Click hyperlink (table title for S2701 Health Insurance Coverage Status, 2012 ACS 1-Year Estimates **Answers: Without health insurance in Montana, 18.0% (+/-0.6); Flathead County, 22.8% (+/- 3.0)**

Click Back to Advanced Search and clear all selections from the Your Selections box.

AFF ADVANCED SEARCH: Modify Table. Sort Results. Filter Results

5. Find a 2010 Census table that lists the American Indian Alone population in Montana by county. Sort the counties in descending order (largest to smallest) by American Indian Alone population.

(a) Which Montana county had the largest American Indian Alone population on the 2010 Census? Which county had the smallest?

(b) How do you display only the counties with American Indian Alone populations of 5,000 people or more? How many counties display? What are they?

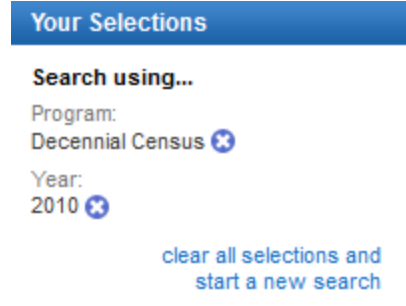
Click on Advanced Search in the top blue bar menu>

Clear all selections in the Your Selections box (lower right corner of box)

Select Topics > click on + to expand Program = Decennial Census

(still on Topics) click on + to expand Year = 2010

Your Selection Box should show:



The screenshot shows a box titled "Your Selections" with a blue header. Below the header, it says "Search using...". Under "Program:", it shows "Decennial Census" with a blue 'x' icon. Under "Year:", it shows "2010" with a blue 'x' icon. At the bottom, there is a link that says "clear all selections and start a new search".

Close Topics overlay after confirming that your selections are in the Your Selections box

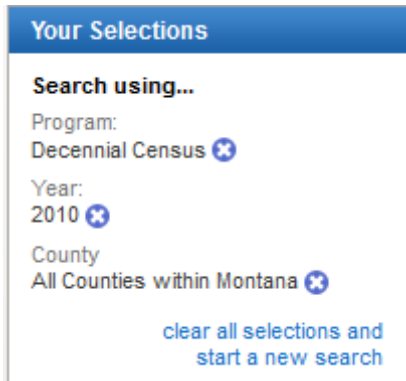
Open Geographies Bar > (List tab is default) Select a geographic type = County - 050

Select a state = Montana

Select one or more . . . = (highlight) All Counties within Montana> Add to Your Selections

Close Geographies window after confirming that your selection is in the Your Selections box

Your Selection Box should show:



The screenshot shows a box titled "Your Selections" with a blue header. Below the header, it says "Search using...". Under "Program:", it shows "Decennial Census" with a blue 'x' icon. Under "Year:", it shows "2010" with a blue 'x' icon. Under "County:", it shows "All Counties within Montana" with a blue 'x' icon. At the bottom, there is a link that says "clear all selections and start a new search".

Tip: Table ID PCT (Population) or HCT (Housing) are from the Decennial Census only and sometimes provide more complex cross-tabulations than you will see on the Detailed Tables. The “CT” refers to the fact that they are only available down to the census tract level.

..5. Find a 2010 Census table that lists the American Indian Alone population in Montana by county (Continued)...

Refine your search (text box): American Indian Alone >GO

Expand the per page view to 75 per page: 75

Check table titles. Generally, choose the simplest table that has the information you need.

Select PCT4, AIAN Alone or in Combination by clicking the table name hyperlink. Or, you can check the box next to table then choose View above menu of results. (You may check more than one table at a time in this manner)

You want to sort the results (by population), and you can only sort data in columns

Click Modify Table > Transpose Rows / Columns

(A yellow box above the table notes that you have modified the original table.)

Note the Legend under table tools

Legend: ☒ show/hide rows and columns collapse/expand data categories rearrange columns rearrange rows sort ascending/ descending filter rows

Mouse over down arrow in the first column American Indian Alone..., then click on the down arrow (you want AI Alone in the “Sort by” column, and “Descending (Z-A)” in the right column) > OK **Answer (a): The Largest American Indian Alone (County) population in 2010 was Glacier County, at 8,428, and the smallest was Petroleum County with 0 persons. This is an actual count because it was a census not a survey.**

Click on down arrow (in red now) and select Remove Sort

Next, Click on the filter icon (funnel) in the first column - American Indian Alone... > (drop-down menu) =greater than or equal to > 5,000 > OK

Answer (b): 4 counties had American Indian Alone populations of 5,000 or greater: Big Horn, Glacier, Lake, and Roosevelt in 2010. This is an actual count because it was a census not a survey.

Click Back to Advanced Search and clear all selections from the Your Selections box.

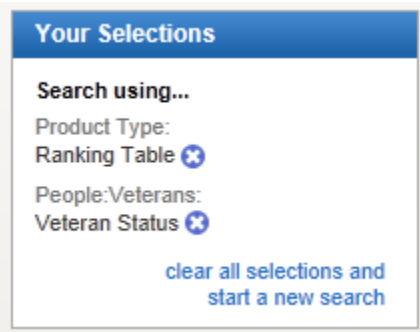
AFF ADVANCED SEARCH: Product Type – Ranking Tables

(States ranking available in – 1-year estimates only)

6. *In 2012, where did Montana rank (with other states) on the number of Veterans? (View the table using the statistical significance tool.)*

Click on Advanced Search in the blue menu bar at the top
Select Topics Bar> Product Type = Ranking Tables
(still in Topics) > Select People = Veterans = Veteran Status
Close Topics overlay (window) by clicking “X” upper right OR by
clicking Topics filter bar

Your Selection Box should show:



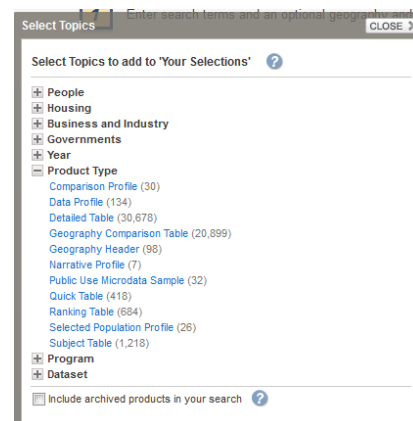
Your Selections

Search using...

Product Type:
Ranking Table ✕

People: Veterans:
Veteran Status ✕

[clear all selections and start a new search](#)



Select Topics Enter search terms and an optional geographic area. CLOSE ✕

Select Topics to add to 'Your Selections' ?

- People
- Housing
- Business and Industry
- Governments
- Year
- Product Type
 - Comparison Profile (30)
 - Data Profile (134)
 - Detailed Table (30,678)
 - Geography Comparison Table (20,899)
 - Geography Header (98)
 - Narrative Profile (7)
 - Public Use Microdata Sample (32)
 - Quick Table (418)
 - Ranking Table (684)
 - Selected Population Profile (26)
 - Subject Table (1,218)
- Program
- Dataset

☐ Include archived products in your search ?

Click hyperlink for R2101 Percent of Civilian Population 18 Years and Over Who Are Veterans
(2012 ACS1-Year Estimates)

Answer: MT ranked 2nd among states, with 12.7% (+/-0.5) in Percent of Veterans

Click on US Map Icon in the Actions menu, With Statistical Significance

 With Statistical Significance

Notice in the map that 4 states have a # sign in the column. The # indicates the states value is not significantly different. So, for example since the estimate of Mississippi at 9.1 +/-0.3 the estimate range (8.8 to 9.4) overlaps Wisconsin, Minnesota, and Louisiana's estimates so these states are indistinguishable in rank.

Rank	Geographical Area	Stat Sig?	Percent	Margin of Error
36	Wisconsin		9.2	+/-0.2
38	Mississippi	#	9.1	+/-0.3
39	Minnesota	#	9.0	+/-0.2
40	Louisiana	#	8.9	+/-0.2
41	Michigan		8.7	+/-0.1
42	Rhode Island	#	8.5	+/-0.4

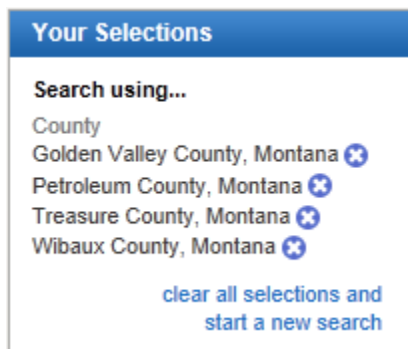
Click Back to Advanced Search and clear all selections from the Your Selections box

AFF ADVANCED SEARCH: Bookmark. Save Query. Load Query

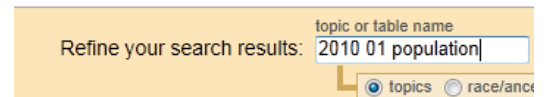
- 7. Make a table of the total 2010 population (P1 Population) for the following counties in Montana: Golden Valley, Petroleum, Treasure, and Wibaux. Save the query to the desktop and load the query from that saved file.**

Click on Advanced Search in the blue menu bar at the top
Open Geographies Bar > > (List tab) > County-050> (select a state) Montana
Scroll Down and Highlight Golden Valley County, **then hold Ctrl key down** while selecting Petroleum, Treasure, and Wibaux Counties
Click Add to Your Selections
Close Geographies window overlay

Your Selection Box should show:



Refine your search results by typing in the topic or table name area: 2010 p1 population then hit return

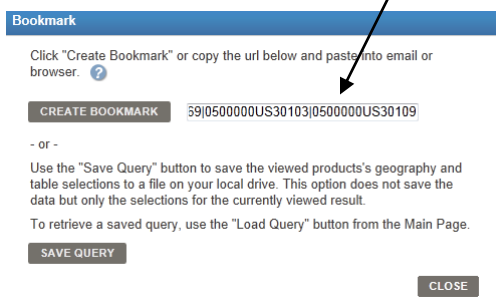


Click hyperlink for P1 Total Population

Click on Bookmark in Actions Menu:



(Note that you may copy the URL and paste into an e-mail or other document.)



..7. Make a table of the total 2010 population... save the query (Continued)...

To Save Your Geography Selections for Later Use:

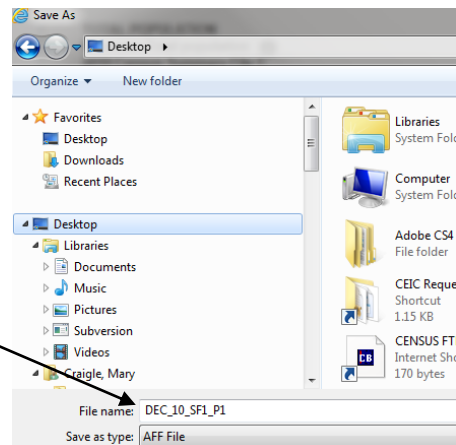
Click on Save Query > **Save as** (not Save)> Desktop (or folder) > Save as Type AFF File (**Note: instructions may vary by browser**) Now Test by clicking Back to Advanced Search and clearing all selections)

To restore this saved query

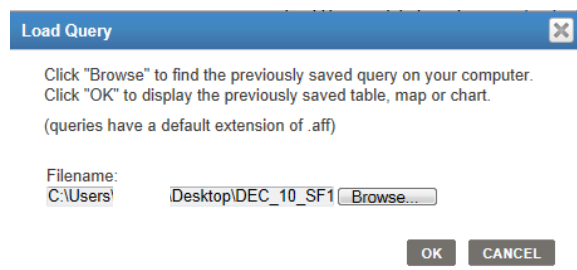
Go to AFF Main tab

In the lower right corner, Click on Load Query > Browse (desktop)

File name = *.aff (the extension for American FactFinder documents)



Click on document so it appears in the File name text box
> Open > OK Back to Advanced Search
Your geographies remain in the Your Selections box and
you may select other topics and tables



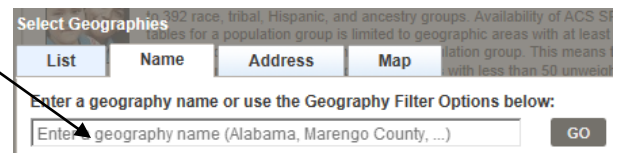
Clear all selections from the Your Selections box

AFF ADVANCED SEARCH: ACS Product Type – Comparison Profiles

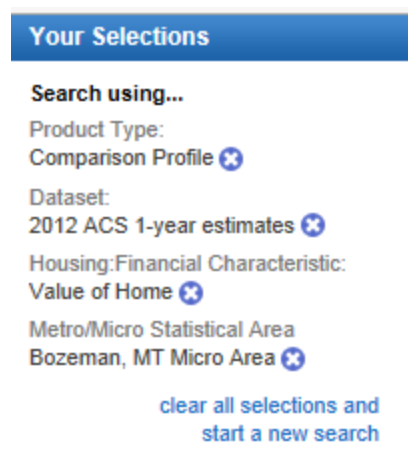
(Comparison Profiles are only available for populations of 65,000 or more – 1-year estimates)

- 8. Make a Comparison Profile on home values in Bozeman, Montana using the 2012 ACS 1-Year estimates. In which of the past five years was the estimated median value of the owner-occupied homes the highest, and what was that median value?**

Click on Advanced Search in the blue menu bar at the top
Open Topics filter bar > Product Type = Comparison Profile
Also on Topics > Dataset = 2012 ACS 1-year estimates
Also on Topics > Housing > Financial Characteristics = Value of Home
Close Topics window overlay
Open Geographies Bar > > Go to Name tab > Type in Bozeman, Montana > GO
(In Geography Results) Click on hyperlink for Bozeman, Montana Micro Area
Close Geographies window



Your Selection Box should show:



(In Search Results) click hyperlink for CP04 Selected Housing Characteristics
Scroll about half way down table to “Value” and look at row- Median (dollars). There will be estimates for 5 years (2008-2012)

Answer: 2008 Estimate, \$320,000

CAUTIONARY NOTE: Make sure you know what geographic area your “geography selection” represents. In the above example, we selected “Bozeman, MT Micro Area”. That area, geographically, is equal to the entire Gallatin Valley. Because a geography in AFF has a seemingly familiar name doesn’t always mean it represents the actual geography we would assume it represents locally.

AFF ADVANCED SEARCH: Refining with Key Words and Downloading a Table

9. Access all the Detailed Tables on immigration - - for (1) the U.S., (2) the state of Montana (3) Missoula County, and (4) the City of Billings. Then use the topic or table name text box to refine the results by entering (one at a time) citizen, year of entry, Asia.

(A) In B05007, 2011 ACS 5-year estimates. Where is the South America section?
How many South American Not U.S. Citizens entered Billings City in 2000 or later?

(B) Download C05007 (2011 ACS 3-year) into an Excel (.xls) format

Advanced Search > Topics filter > Product Type = Detailed Table

Close Topics window overlay

In Topic or table name text box enter immigration > GO
(702 tables match)

Open Geographies Bar > (list tab) > select a geographic type > United States - 010

Highlight United States and Add to Your Selections

Select next geographic type > State - 040 = Montana > Highlight and Add to Your Selections

Select a third geographic type > County - 050 > Select a state = Montana > Highlight Missoula County and Add to Your Selections

Select a fourth geographic type > Place - 160 > Select a state = Montana > Highlight Billings City and Add to Your Selections

Close Geographies window overlay
(495 tables match)

Refine by entering (in topic or table name)

citizen > GO (375 tables)

year of entry > GO (52 tables)

asia > GO (32 tables)

Search Results: 1-25 of 32 tables and other products match "Your Selections"

Your Selection Box should show (you will need to scroll down):

Your Selections

Search:
"immigration" ✕
"citizen" ✕
"asia" ✕

Product Type:
Detailed Table ✕

People: Origins:
Year of Entry ✕

United States
United States ✕

State
Montana ✕

County
Missoula County, Montana ✕

Place within State
Billings city, Montana ✕

[clear all selections and start a new search](#)

Select Topics [CLOSE X]

Select Topics to add to "Your Selections" ?

- People
- Business and Industry
- Year
- Product Type
 - Detailed Table (702)
 - Geography Comparison Table (101)
 - Geography Header (3)
 - Quick Table (5)
 - Subject Table (32)
- Program
- Dataset

☐ Include archived products in your search ?

...9. Access all the Detailed Tables on immigration - - for (1) the U.S., (2) the state of Montana (3) Missoula County, and (4) the City of Billings (Continued)...

Click hyperlink for B05007, 2011 ACS **5-year** estimates

**Answers (A): South America is towards the bottom of the table.
The ACS estimate is 5 +/- 11 South Americans Not U.S. Citizens entered Billings City in 2000 or later. This number should NEVER be cited because the margin of error is TOO large.**

Answer (B): Downloading an AFF table into an Excel Spreadsheet (.xls)

Click Download > Select the Radio button next to Microsoft Excel (.xls)
OK > (will get a message building file...) > then Download.
Click Open (screen bottom) to view the file.
Close Excel

Click Back to Advanced Search and clear all selections from the Your Selections box

AFF FEATURES: Address Search, Reference Map Thematic Map of “Service Area”

10. You want to find data for the area around a specific address. (Remember that data are protected for individuals as well as individual households and businesses.)

(a) What is the 2010 census tract number for the Montana Department of Commerce? The address is 301 South Park, Helena, MT 59601.

(b) What was the median household income (in 2011 inflation-adjusted dollars) for this census tract for the period 2007-2011, from the ACS Data Profile DP03, Selected Economic Characteristics?

(c) Make a reference map of this Census Tract 8, Lewis & Clark County, MT to identify all the census tracts adjacent to Census Tract 8. We'll call this your service area.

(d) Make a thematic map of your service area showing the median household income by census tract (2007-2011 ACS estimate). Customize the map to show two data classes, \$45,000 and below, and more than \$45,000 per year.

Instructions (a):

Click on Main Tab in the blue menu bar at the top American FactFinder (AFF) >Main Tab



In the right column midway down you will see Address Search. Click on street address

Enter (in street address box) 301 S. Park (in city box) Helena (choose state drop-down) Montana (zip) 59601 = GO (Always double-check resulting address.)

Answer (a): Census Tract 8, Lewis & Clark County Montana.

Instructions (b):

Click on the hyperlink for *Census Tract 8, Lewis & Clark County Montana*.

After making certain the census tract appears in the Your Selections box, close the Geographies window.

Click on the hyperlink for Selected Economic Characteristics (DP03) from the dataset 2011 ACS 5-year estimates and scroll down the table until you find the answer.

Answer (b): In the period 2007-2011, the median household income in Census Tract 8, Lewis & Clark County, in 2011 inflation-adjusted dollars, was \$32,333 (+/- \$6,744).

Select “Back to Advanced Search”

..10. You want to find data for the area around a specific address. (Continued)...

(c) **Make a reference map of this Census Tract 8, Lewis & Clark County, MT to identify all the census tracts adjacent to Census Tract 8. We'll call this your service area.**

Instructions (c):

Select the Geographies bar > Map tab
Under Select Geographies, open the drop-down menu and select Census Tract



Click on Boundaries and Features Bar> check Boundary and check Label for 2012 Census Tract (Census tracts are redefined once per decade, so the boundaries for 2010 tracts are the same.)

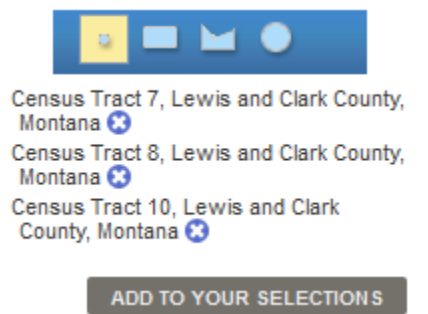
Scroll to bottom of screen and click Update (don't forget this step!)

Mouse over the four icons representing selection tools -- in the blue box

Select the first one, "select using a point," the pointer tool

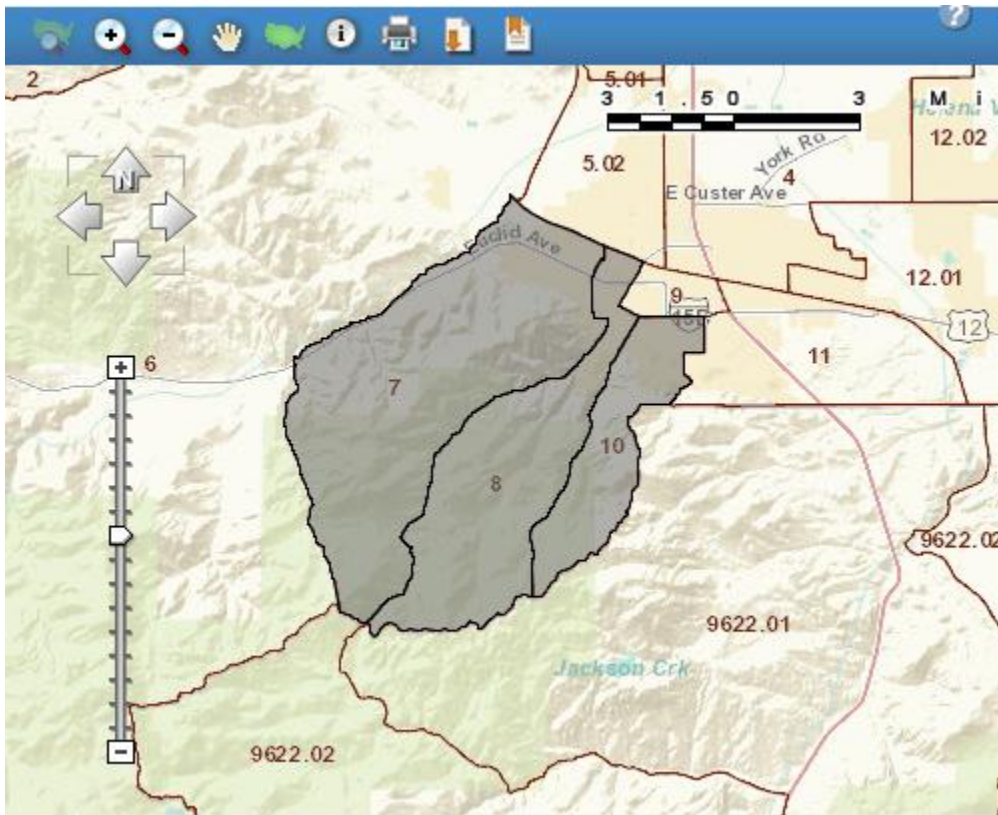
Click on Census Tract 8 and each of the 2 census tracts nearest to Census Tract 8- Census Tract 7 and Census Tract 10. Each one will turn grey as selected

Note that one by one, they will also appear by name below the selection tool icons



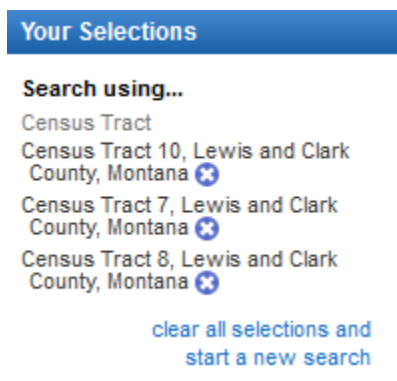
10. You want to find data for the area around a specific address. (Continued)...

See illustration below of result – this is a **Reference Map** (no data) of your service area



When you have all 3 census tracts listed, **click Add to Your Selections (don't forget this step)**

Your Selection Box should show:



Close geographies overlay

10. You want to find data for the area around a specific address. (Continued)...

(d) Make a thematic map of your service area showing the median household income by census tract (2007-2011 ACS estimate). Customize the map to show two data classes, \$45,000 and below, and more than \$45,000 per year.

Refine your search results text box, enter median household income > GO

topic or table name
Refine your search results: Median Household Income
topics race/ancestry

Click hyperlink for B19013, Median Household Income in the Past 12 Months (ACS 5-year estimates).

Your Selection Box should show:

Your Selections

Search using...

Search:
"Median Household Income" ✕

Census Tract
Census Tract 10, Lewis and Clark
County, Montana ✕


Census Tract 7, Lewis and Clark
County, Montana ✕






Census Tract 8, Lewis and Clark
County, Montana ✕

[clear all selections and
start a new search](#)

Create Map with these 3 Tracts and Median Household Income Data

Click Create a Map (It will be greyed out if you are not allowed to map data from this table)

Table View 

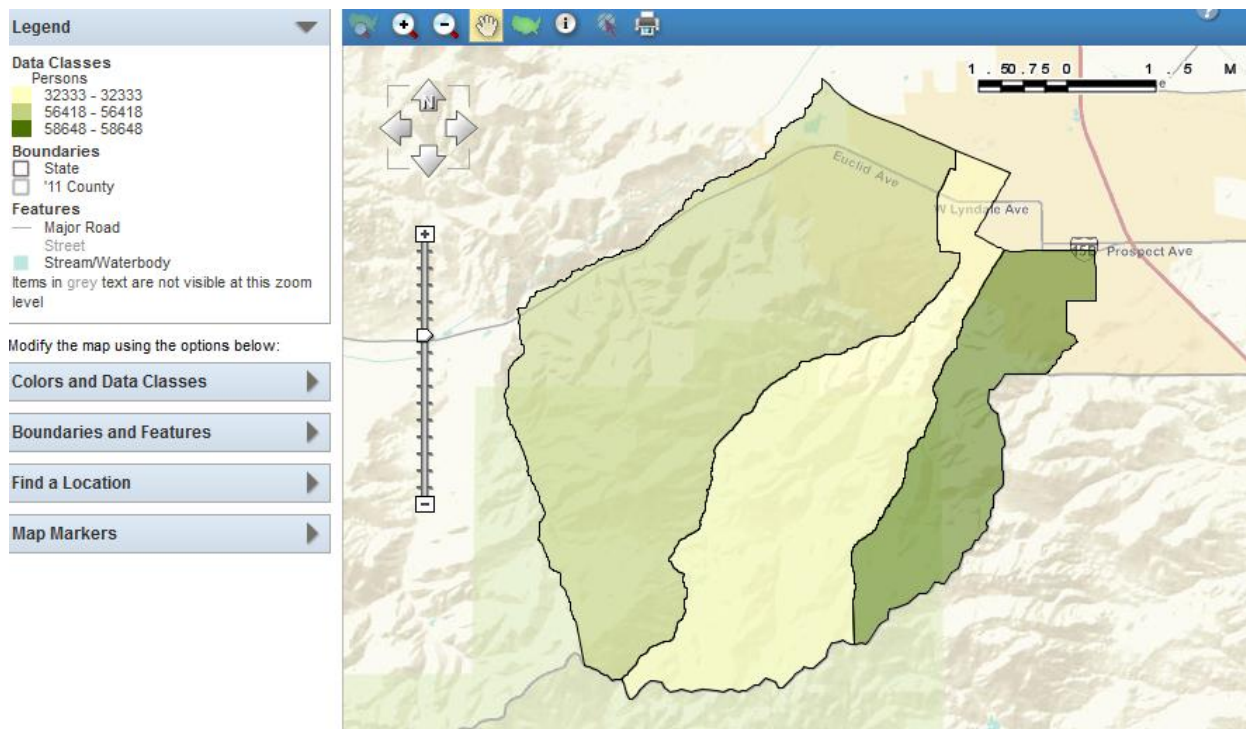
Actions:  [Modify Table](#) |  [Bookmark](#) |  [Print](#) |  [Download](#) |  [Create a Map](#)

Message will appear – Click on a data value in the table to map. You can only get a map by including a selecting a value from the table

Click on value in the column for Census Tract 8, Estimate (value is \$32,333) > Show Map
Thematic map displays with comparative percentages displayed by intensity of color

10. You want to find data for the area around a specific address. (Continued)...

(d) Make a thematic map of your service area showing the median household income by census tract (2007-2011 ACS estimate). Customize the map to show two data classes, \$45,000 and below, and more than \$45,000 per year.



Customize Map

A) To display tract numbers, you again must open Boundaries and Features
Check Boundary and check Label for 2011 Census Tract > Update

B) For two income groups:

Open Colors and Data Classes

Change Number of classes = 2

Change Classing method = User Defined

Row 1, column 2 = enter \$45,000 (upper bound)

Put cursor in row 2, column 1 and click enter > value of lower bound autofills to \$45,001 > GO

See illustration next page

Colors and Data Classes

Transparency: 50%

Number of classes: 2

Color range (select the first and last colors):

Classing method: User Defined

Define classes.
Values range from 32333 to 58648 Persons.

1	32333	45000
2	45001	58648

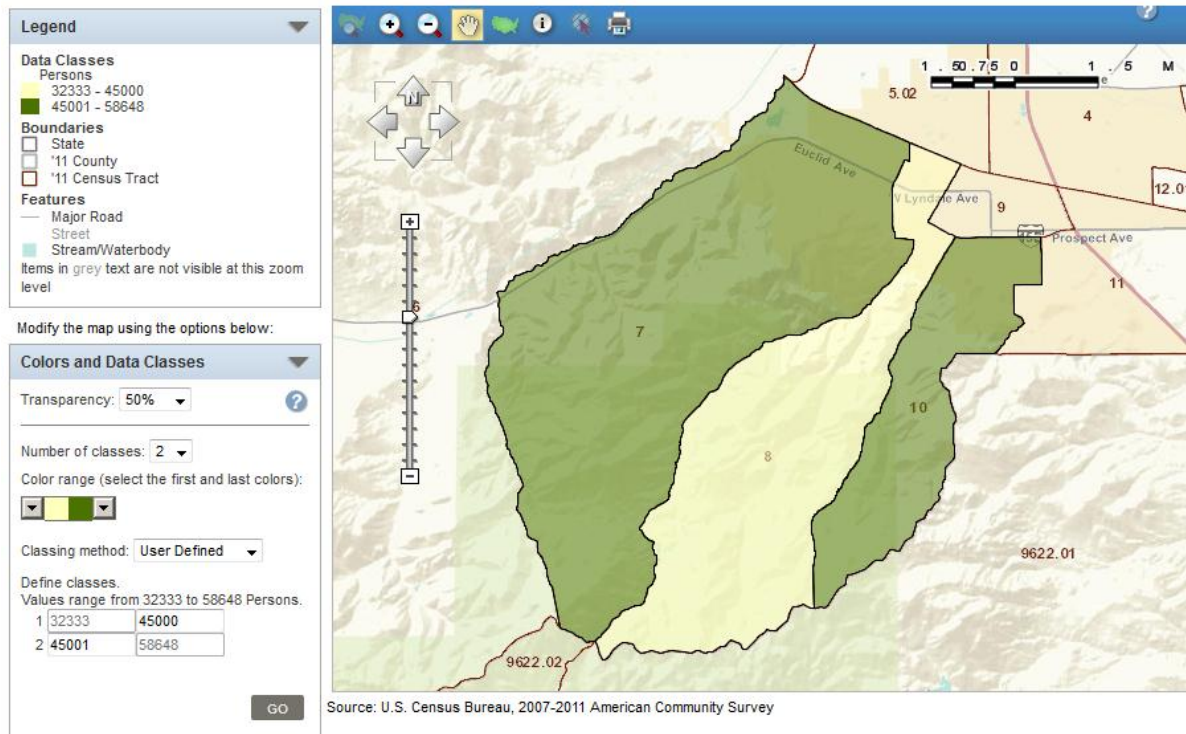
GO

10. You want to find data for the area around a specific address. (Continued)...

(d) Make a thematic map of your service area showing the median household income by census tract (2007-2011 ACS estimate). Customize the map to show two data classes, \$45,000 and below, and more than \$45,000 per year.

Thematic Map of Estimate; Median household income in the past 12 months (in 2011 inflation-adjusted dollars)
Geography: by Census Tract

 [View Table Notes](#)



Thematic Map Caveats

(1) Must start with a data table; (2) two or more same level geographies; (3) one theme only per map. If your data source is the ACS, margins of error do not display with the estimates.